

Science and the world

The applications of science can be seen every day. These men are pushing a piano up a ramp into a truck. Science calls this "work", which is done by moving a mass from one point to the other. This kind of work is done by simple machines that make up all larger, complex machines. Levers, wheels, inclined planes, and screws are simple machines. A ramp is an inclined plane. (75 words)



EYEWITNESS WALLCHARTS

SCIENCE

Science helps us make sense of the world around us. People who study and try to explain the why and how of different phenomena are called scientists. ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at. Nam volores anducid ea dendae experfe rferit ut ex estorat hcidus sit, conem andae pellaut omnim olorro qui Ferum (75 words)

Changing science

Science has developed over thousands of years. It changed the way people think about the world. Ideas are put forward, then accepted or disproved. Aristotle's idea about the sun-centred universe was challenged and later disproved by scientists. Alchemy gave way to modern ways of scientific thinking. Natur mosserchilit (50 words)



Grand orrery showing the Sun at the centre of the solar system

NUMBERS

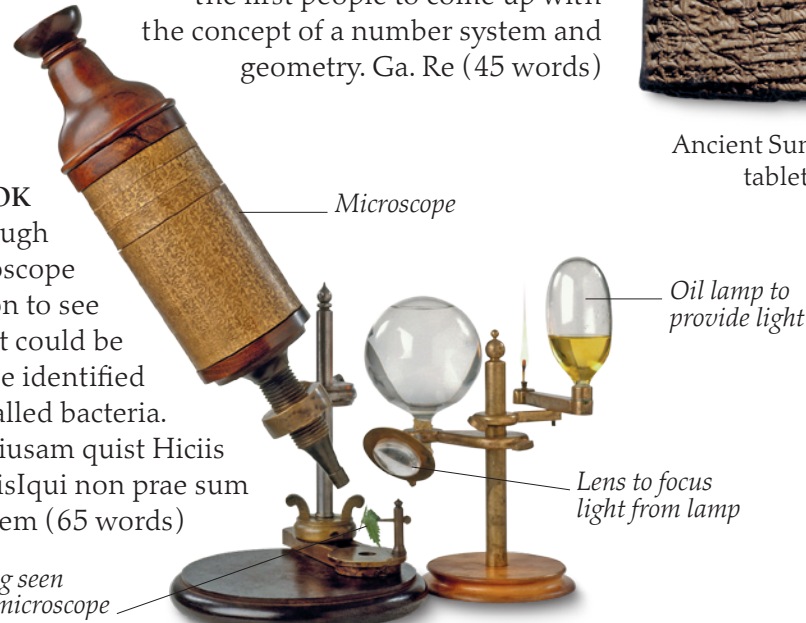
An important step in the growth of scientific thinking and the birth of Mathematics was the invention of numbers. Ancient Sumerians were one of the first people to come up with the concept of a number system and geometry. Ga. Re (45 words)



Ancient Sumerian tablet

A NEW LOOK

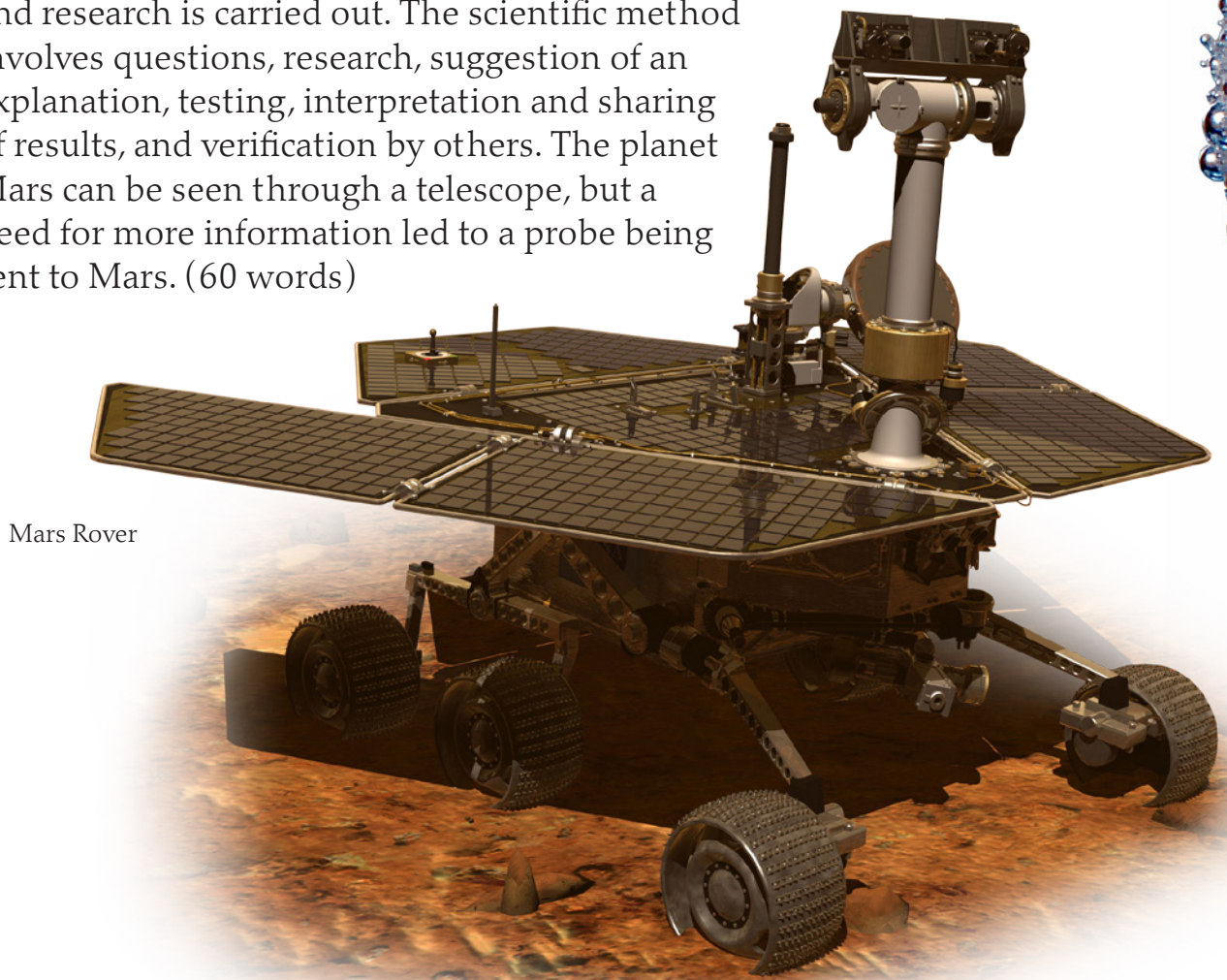
Robert Hooke looked through an instrument called a microscope and became the first person to see things far smaller than what could be seen with the naked eye. He identified entities that came to be called bacteria. nulpia ipsa com ni hil illiquia iusam quist Hiciis pos custrum Natiun sectisliqui non prae sum at est od magnimpore volorem (65 words)



Hooke's Microscope

Scientific method

Science is very methodical in the way analyses and research is carried out. The scientific method involves questions, research, suggestion of an explanation, testing, interpretation and sharing of results, and verification by others. The planet Mars can be seen through a telescope, but a need for more information led to a probe being sent to Mars. (60 words)



Mars Rover

Bromine in a flask



Gaseous bromine

Solid bromine

Matter and elements

There are three natural states of matter – solid, liquid, and gas. All forms of matter are made of basic substances known as elements. Each element has a specific form and properties. Elements have been classified into groups such as metals, halogens, and inert gases. Metals include gold, copper, and iron. Carbon and oxygen are nonmetals. Gases such as flourine, bromine, and chlorine are halogens. lorem ipsum (70 words)



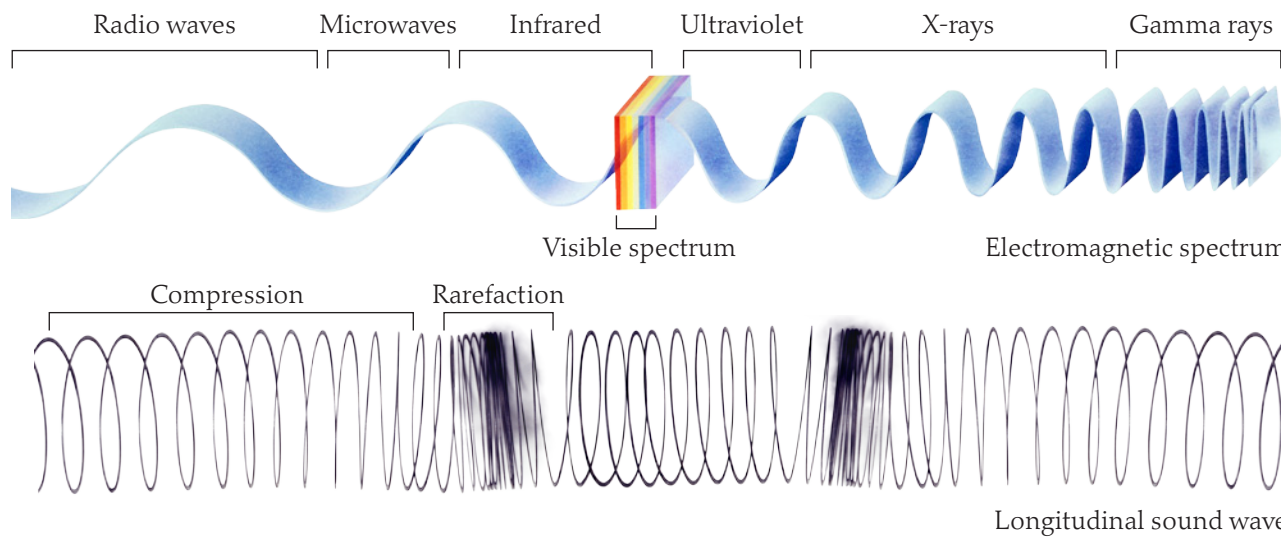
CLASSIFYING ELEMENTS

Dimitri Mendeleev developed a system of classification for elements. His table showed how different groups of elements exhibit similar properties and helped predict several elements that were discovered years later. sperest esedio nsequi bere nulpia ipsa com nihil illiquia iusam Hendit. Imposa volut fugitam iuntibu sandis vitui, to volum (55 words)



RUSTING AWAY

Rust forms through a chemical reaction called corrosion. Iron reacts with water and oxygen to form a compound called ferrous oxide. Nem que etures excerem inus. Sequi denis dolup tassi nonsed ear um Ugutio. As autet et Vitat. Num faccus. Ximus aut poratus apicid enducius dunt labore dolupatium costo odi restem n (55 words)



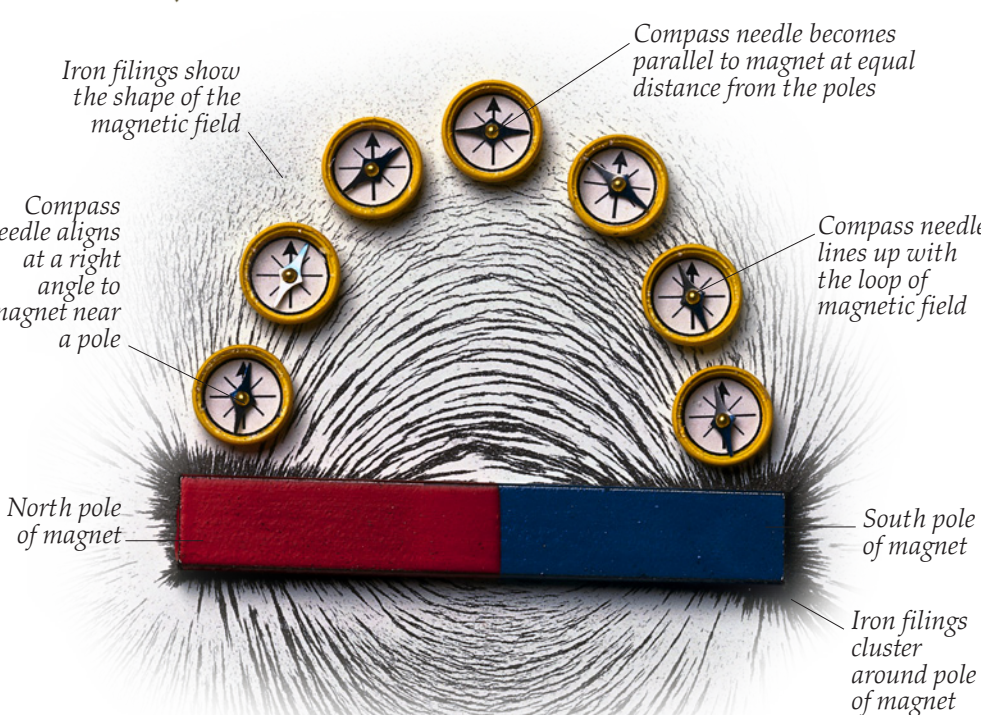
Waves

Light and sound are waves. Sound is a longitudinal, mechanical wave that needs a medium to propagate. Certain animals and objects can emit sound at frequencies higher than the threshold of the human hearing range. Light is an electromagnetic wave that does not always require a medium to propagate. Visible light is part of the electromagnetic spectrum. lorem ipsum (60 words)



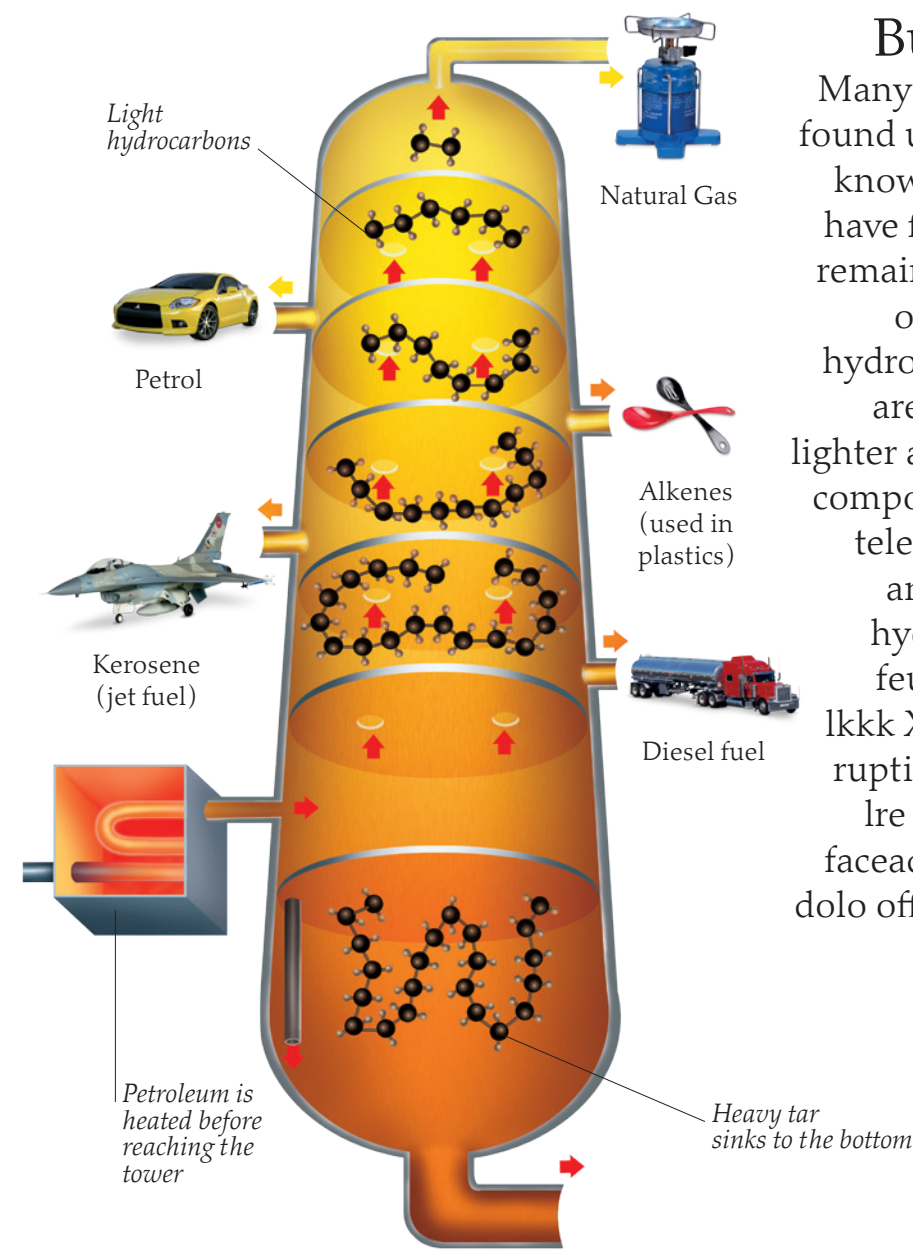
SEEING WITH SOUND

Bats use echolocation to find their way. They send out sounds at ultrasonic frequencies and wait for the echoes to return. The time taken for an echo to return helps the bat to calculate the distance to and size of an object in front of it. i licilla sitibu. ( 50 words)



Electricity and magnetism

The flow of charged particles is known as electricity. Particles can have a positive or negative electric charge. Magnetism is an invisible force that attracts and repels some materials, such as iron and steel, but not others. A magnet creates a field of force around it. Magnets can be used to generate electricity in power stations. (60 words)



Buried chemicals

Many carbon compounds are found underground. These are known as hydrocarbons and have formed from the buried remains of animals and other organic materials. Heavy hydrocarbons like petroleum are distilled to yield many lighter and useful hydrocarbon compounds. Products like old tele fuels, paraffins, nylons, and soaps are made from hydrocarbons. duis dol lot feu gait nulla facilisi. Lore lkkk Ximaximus Sed untecea ruptioem fugia cus suntend lre ebistis et quat aut lilam faceaqussit estecto con cum dolo officab id quia (85 words)

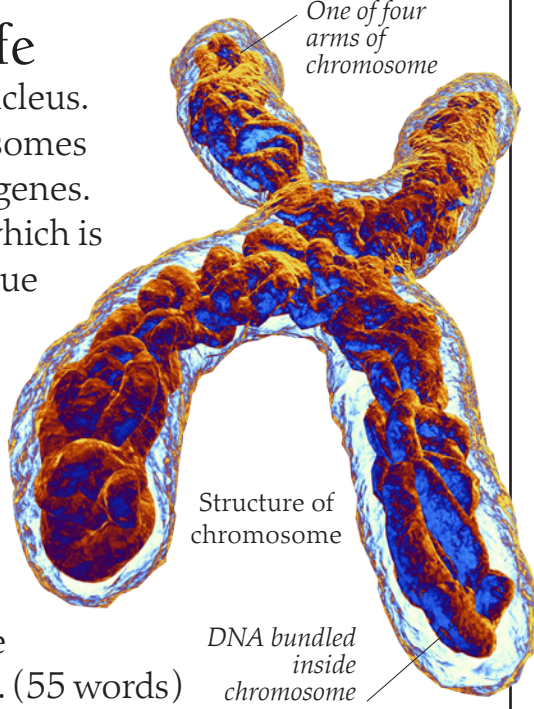
Chemistry of life

Many substances are essential for life. Some of these are carbohydrates, proteins, and fats. These substances flow through food chains and sustain life. Carbohydrates such as glucose are used as a fuel by living beings to generate energy in the process of respiration. berestem (50 words)



The code of life

Each cell contains a nucleus. This contains chromosomes that carry units called genes. These contain DNA, which is a chemical that is unique to every living thing. DNA controls the production of proteins that carry out different functions in the body. Genes help to transfer traits from one generation to the next. (55 words)



EVOLUTION

DNA is replicated many times in the lifetime of an organism. Changes can occur each time. Some of these can make an organism better adapted to a changing environment. This lets the organism change in the process, passing on its genes to its offspring. This cycle of change is called evolution. Elephants have evolved from small animals that lived 37 million years ago (mya). Met et, ut pa diam quis asimet qui endis aut (75 words )



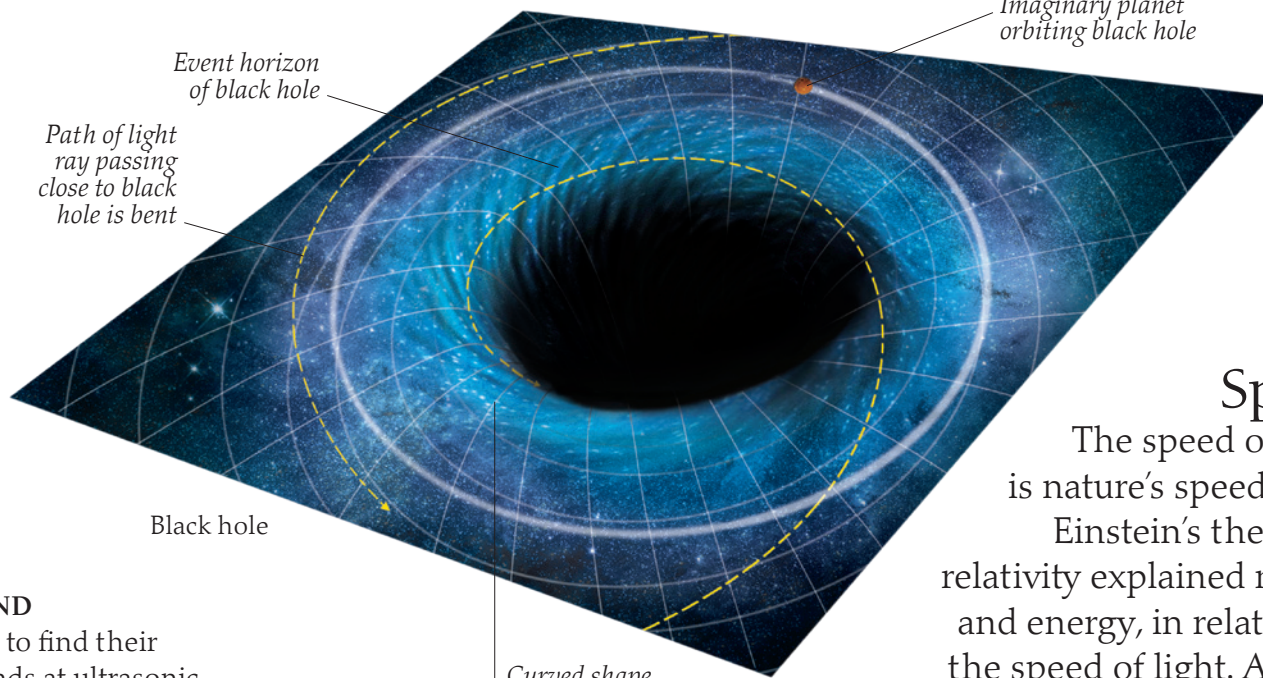
African Elephant 4m (13ft) tall

Deinotherium 3.5m (11ft) tall lived 15 mya

Gomphotherium 3m (9.8ft) tall lived 23 mya

Phiomia 2.5m (8ft) tall lived 33 mya

Moeritherium 70cm (2 ft) tall lived 37 mya

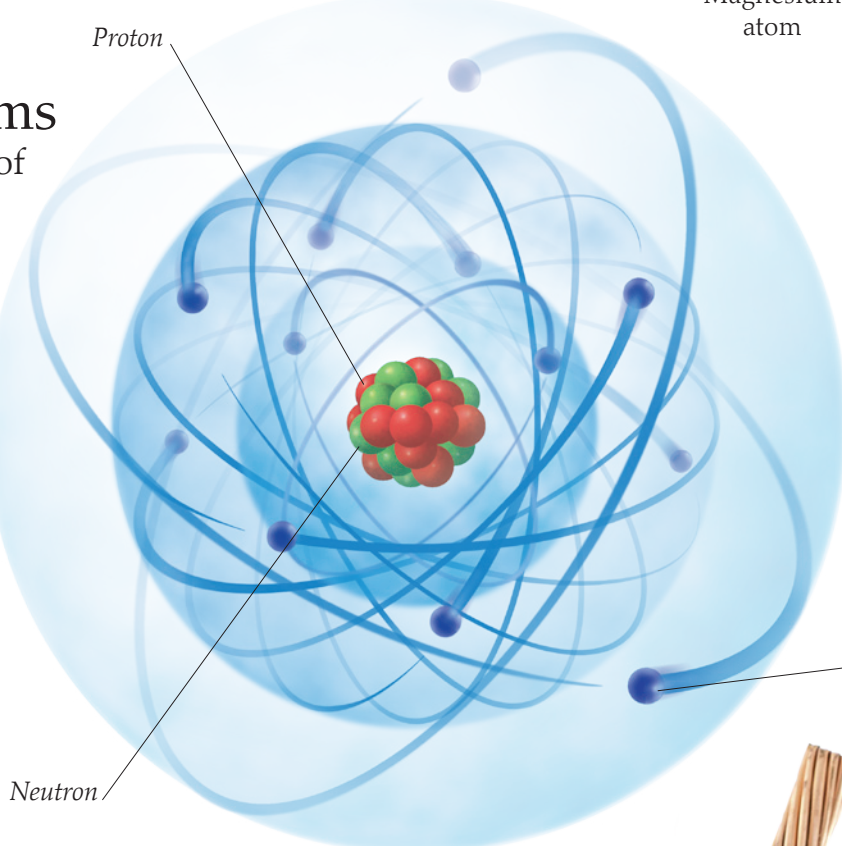


Space

The speed of light is nature's speed limit. Einstein's theory of relativity explained matter and energy, in relation to the speed of light. A mass produces a gravitational pull. Relativity explains how the gravity of a large mass, such as a black hole, can bend space. The black hole's gravity is strong enough to pull in light as well. Ferferundam (65 words)

Atoms

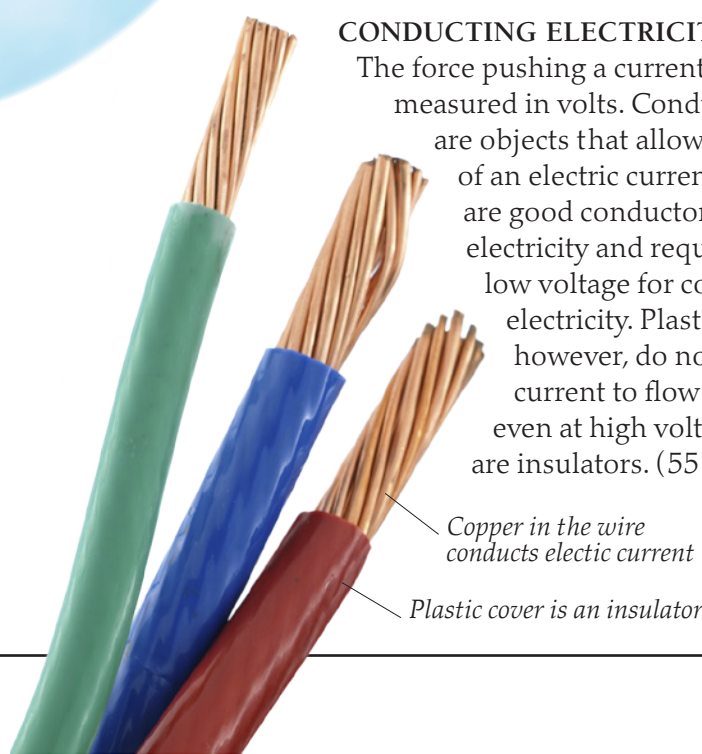
Each element is made up of smaller units called atoms. An atom is made up of particles called protons, electrons, and neutrons. Scientists have learnt how to harness energy from atoms. This done in two ways: fusion and fission. Atoms make up matter, which has three natural states. Ver consed (53 words)



Ultraviolet image of Sun

SOLAR ENERGY

The energy in the Sun is generated via fusion. Atoms fuse together to form larger atoms of heavier elements. This process gives out a lot of energy in the form of light and heat. Fusion produces more energy than fission. Sediasped maximillorro occum idunti conms qui sum, sun id (50 words)



CONDUCTING ELECTRICITY

The force pushing a current is measured in volts. Conductors are objects that allow the flow of an electric current. Metals are good conductors of electricity and require a low voltage for conducting electricity. Plastics, however, do not allow a current to flow through even at high voltages. These are insulators. (55 words)

Copper in the wire conducts electric current

Plastic cover is an insulator



Gamma knife uses gamma rays to treat tumours and cancer

Science frontiers

Science has several unanswered questions. These questions include those regarding the origins of the universe, immortality, extra-terrestrial life, teleportation, and a possible cure for cancer. Dessunt ent. Ducipsam harum verferc hillaciur sunt quisto cone etatim Everionsequam audicta turibusame net vel ma etur susa (50 words)